Chapter

Dashboard Management

8

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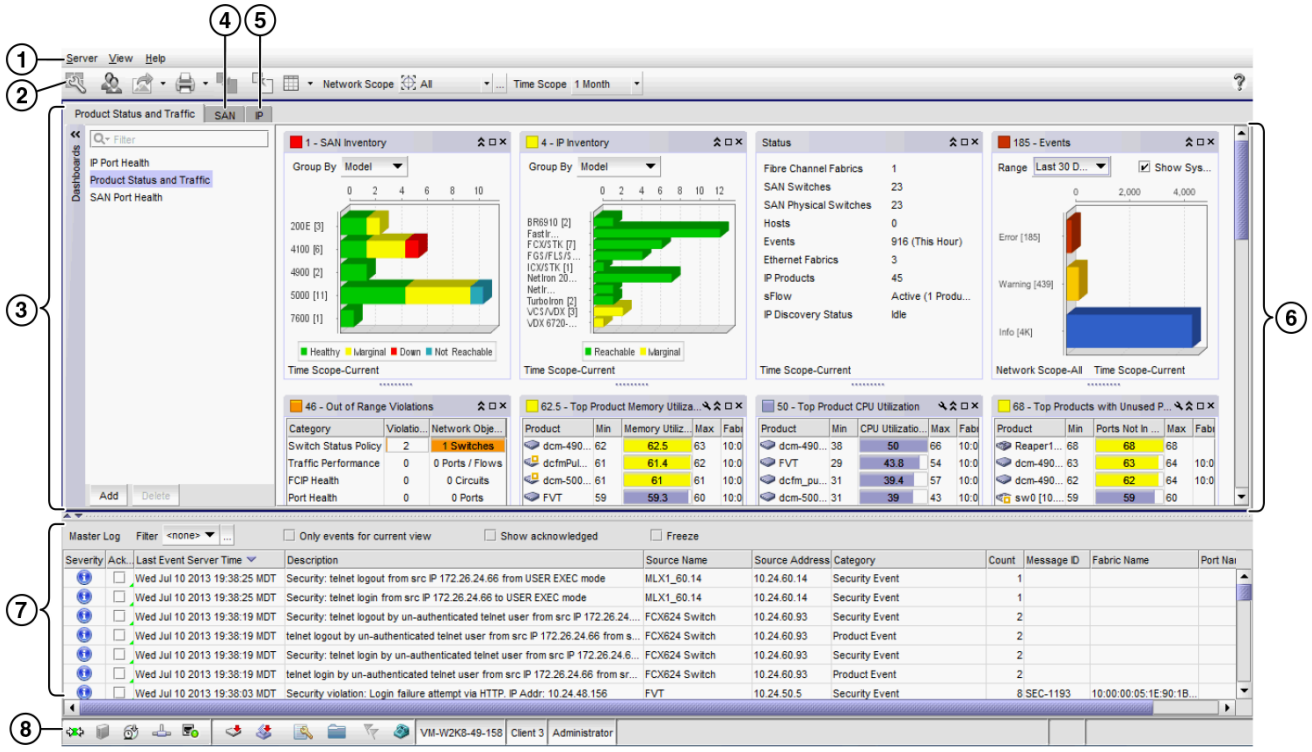
Dashboard overview

NOTE
Only devices in your area of responsibility (AOR) display in the dashboard.

The **Dashboard** tab (Figure 95) displays the status widgets, performance monitors, and the Master Log. You can also display additional status widgets and performance monitors, as needed. The Management application has the following default dashboards: Product Status and Traffic, SAN Port Health, and IP Port Health.

The dashboard provides a high-level overview of the network and the current states of managed devices. This allows you to easily check the status of the devices on the network. The dashboard also provides several features to help you quickly access reports, device configurations, and system logs.

The dashboard updates regardless of the currently selected tab (**SAN**, **IP**, or **Dashboard**) or the SAN or LAN size. However, data may become momentarily out of sync between the dashboard and other areas of the application. For example, if you remove a product from the network while another user navigates from the dashboard to a more detailed view of the product, the product may not appear in the detailed view.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Only events for current view
Show acknowledged
Freeze
Severity
Ack.
Last Event Server Time
Description
Source Name
Source Address
Category
Count
Message ID
Fabric Name
Wed Jul 10 2013 19:38:25 MDT Security: telnet logout from src IP 172.26.24.66 from USER EXEC mode MLX1_60.14 10.24.60.14 Security Event 1
Wed Jul 10 2013 19:38:25 MDT Security: telnet login from src IP 172.26.24.66 to USER EXEC mode MLX1_60.14 10.24.60.14 Security Event 1
Wed Jul 10 2013 19:38:19 MDT Security: telnet logout by un-authenticated telnet user from src IP 172.26.24... FCX624 Switch 10.24.60.93 Security Event 2
Wed Jul 10 2013 19:38:19 MDT telnet logout by un-authenticated telnet user from src IP 172.26.24.66 from s... FCX624 Switch 10.24.60.93 Product Event 2
Wed Jul 10 2013 19:38:19 MDT Security: telnet login by un-authenticated telnet user from src IP 172.26.24.6... FCX624 Switch 10.24.60.93 Security Event 2
Wed Jul 10 2013 19:38:19 MDT telnet login by un-authenticated telnet user from src IP 172.26.24.66 from sr... FCX624 Switch 10.24.60.93 Product Event 2
Wed Jul 10 2013 19:38:03 MDT Security violation: Login failure attempt via HTTP. IP Addr: 10.24.48.156 FVT 10.24.50.5 Security Event 8 SEC-1193 10:00:00:05:1E:90:1B...
VM-W2K8-49-158
Client 3
Administrator

FIGURE 95 Dashboard tab

1. **Menu bar —** Lists commands you can perform on the dashboard. For a list of **Dashboard** tab menu commands, refer to "Dashboard main menus" on page 1887.

   The dashboard also provides a shortcut menu to reset the dashboard back to the defaults. Reset the dashboard back to the default settings by right-clicking in the white space and selected **Reset to Default**.

2. **Toolbar —** Provides buttons that enable quick access to dialog boxes and functions. For a list of Dashboard tab toolbar options, refer to "Dashboard toolbar" on page 271.

3. Dashboard tab — Provides a high-level overview of the network managed by Management application server.

4. **SAN** tab — Displays the Master Log, Minimap, Connectivity Map (topology), and Product List. For more information, refer to the "SAN tab overview".

5. **IP** tab — Displays the Master Log, Minimap, Connectivity Map (topology), and Product List. For more information, refer to the "IP tab overview".

6. Dashboard expand navigation bar — The expand navigation bar is located left of the status widgets or performance monitors and provides a list of dashboards to choose from as well as buttons to perform add and delete functions. For more information, refer to "Dashboards expand navigation bar" on page 272.

7. **Widgets —** Displays operational status, inventory status, event summary, and overall network or fabric status as well as performance monitors. For more information, refer to "Status widgets" on page 282 and "Performance monitors" on page 304.

8. **Master Log —** Displays all events that have occurred on the Management application. For more information, refer to "Master Log" on page 376.

9. **Status bar —** Displays the connection, port, product, fabric, special event, Call Home, and backup status, as well as Server and User data. For more information about the status bar, refer to "Status bar" on page 379.

Dashboard toolbar

The toolbar (Figure 96) is located beneath the menu bar and provides icons and buttons to perform various functions.

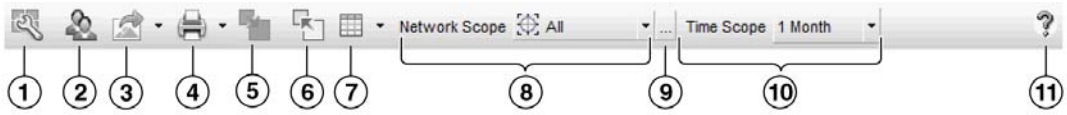

FIGURE 96 Toolbar

The toolbar contains the following icons and buttons:

1. **Customize Dashboard** — Displays the **Customize Dashboard** dialog box. Use to configure which status widgets and performance monitors display on the **Dashboard** tab and **Performance Dashboard**. For more information, refer to "Customizing the dashboard widgets and monitors" on page 275
2. **Users —** Displays the **Users** dialog box. Use to configure users, user groups, and permissions. For more information, refer to "User accounts" on page 241.
3. **Export** list — Saves the current dashboard display (all widgets) or a selected widget in a .png format. For more information, refer to "Exporting the dashboard display" on page 277.
4. **Print** list — Prints the dashboard display (all widgets) or a selected widget. For more information, refer to "Printing the dashboard display" on page 277.
5. **Attach** — Returns the dashboard to the main window. For more information, refer to "Attaching and detaching the Dashboard tab" on page 277.
6. **Detach** — Detaches the dashboard to a separate window. For more information, refer to "Attaching and detaching the Dashboard tab" on page 277.
7. Dashboard display list — Use to select how to display the status widgets and performance monitors in the dashboard. For more information, refer to "Setting the dashboard display" on page 275.
8. **Network Scope** — Use to select the network you want to display in the dashboard. For more information, refer to "Setting the network scope" on page 278.
9. **Network Scope** ellipsis button — Displays the **Edit Scopes** dialog box. Use to configure or delete product and port scopes. For more information, refer to "Creating a customized network scope" on page 278.
10. **Time Scope** list — Use to select the specific duration for which you want to display data. For more information, refer to "Setting the data display time frame" on page 280.
11. **Help** — Displays the online help.

Dashboard messages

The dashboard message bar (Figure 97) only displays when the Network Scope or Time Scope has changed. You can also view all dashboard messages and clear them.

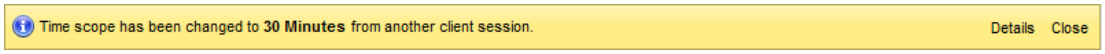

FIGURE 97 Dashboard message bar

The toolbar contains the following fields and components:

1. **Details** button — Use to view dashboard messages.
2. **Close** button — Use to close the dashboard message bar.

Dashboards expand navigation bar

The expand navigation bar (Figure 98) is located left of the status widgets or performance monitors and provides a list of dashboards to choose from as well as buttons to perform add and delete functions.

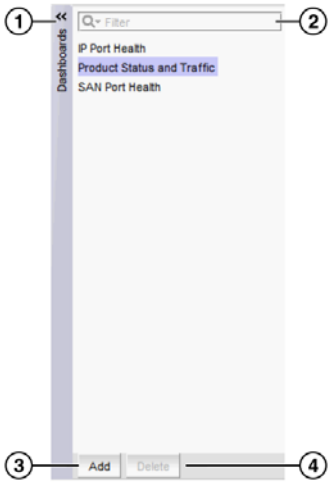

FIGURE 98 Expand navigation bar

The toolbar contains the following fields and components:

1. **Dashboards** expand navigation bar — Use to select the dashboard you want to view from the list. For more information, refer to "Accessing a dashboard" on page 273.
2. **Filter** — Use to search for the dashboard you want to view.
3. **Add** button — Use to create a dashboard. For more information, refer to "Creating a user-defined dashboard" on page 274.
4. **Delete** button — Use to delete the selected user-defined dashboard. For more information, refer to "Deleting a user-defined dashboard" on page 275.

General dashboard functions

The Management application also provides the following general functions which are applicable to all widgets and monitors:

- **Preference persistence —** Any customization you make to the dashboards are persisted in that dashboard. For example, if you customize a dashboard to display the **Events** widget and set the **Range** to **This Hour** in the **Dashboard** tab and set it to **Last 30 Days** in the **Performance Dashboard**, then these preferences persist when you log off and log back in again.
- **Severity** — Most widgets display a severity icon (worst severity of the data shown) next to the widget title. The SAN and IP Status and SAN, IP, and Host Inventory widgets also indicate the number of products with that severity. The Events widget displays a severity icon with the highest severity event color. The Status widget does not display the severity icon.
- **Title bar buttons** — Status widgets have the following three (left to right) title bar buttons: expand/collapse, maximize/minimize, and close. Performance monitors are editable and have the following four (left to right) title bar buttons: edit, expand/collapse, maximize/minimize, and close.
- **Resizing** — All widgets can be resized by dragging the grab bars. Use the vertical grab bars between widget columns to adjust the width of widgets in the adjacent columns. Use the horizontal grab bars to adjust the height of adjacent widget rows.

  Reset the dashboard back to the default size by right-clicking in the white space and selected **Reset to Default**.
- **Zoom in** — Only widgets with a bar graph enable you to zoom in using your mouse. To zoom in, click the upper left of the widget area on which you want to zoom in, drag the mouse to the lower right, and release the mouse button.
- **Zoom out** — Only widgets with a bar graph enable you to zoom out using your mouse. To zoom out, click the lower right widget area on which you want to zoom out, drag the mouse to the upper left, and release the mouse button.
- **Tooltips** — Only widgets with a pie chart or bar graph display tooltips when you pause on a section or bar.
  - For the pie chart widgets, the tooltip displays the name of the category, number of items in that category, and the percentage.
  - For the bar graph widgets, the tooltip displays the count represented by the selected bar.

Accessing a dashboard

From the **Dashboards** expand navigation bar, double-click the dashboard you want to view. Options include:

- **IP Port Health** — Displays preconfigured IP performance monitors. You can display additional status widgets and performance monitors in this dashboard.
- **Product Status and Traffic** — Displays preconfigured status widgets and performance monitors. You can display additional widgets and monitors in this dashboard.
- **SAN Port Health** — Displays preconfigured SAN performance monitors. You can display additional status widgets and performance monitors in this dashboard.
- *User_defined* dashboard — Displays a user-defined dashboard.

The dashboard you selected displays.

Filtering the dashboards list

You can filter the list of dashboards to only display dashboard you need.

1. Click the **Dashboards** expand navigation bar.
2. Enter your filter criteria in the **Filter** text box.
3. To make the filter case sensitive or insensitive, choose one of the following options from the filter icon list:
   - **Case sensitive** — Select to make the filter case sensitive.
   - **Case insensitive** — Select to make the filter case insensitive.
4. To allow wild cards or regular expressions, choose one of the following options from the filter icon list:
   - **Use wildcards** — Select to use wildcards in the **Filter** text box.
   - **Use regular expression** – Select to use a unicode regular expression. Enter a Unicode regular expression in the **Filter** text box.
5. To determine how to match the filter text, choose one of the following options from the filter icon list:
   - **Match from start** — Select to match from the start of the dashboard name.
   - **Match exactly** — Select to match the dashboard name exactly.
   - **Match anywhere** — Select to match text anywhere in the dashboard name.
6. To determine how to handle leaf nodes as well as parent and children nodes, choose one of the following options from the filter icon list:
   - **Match leaf node only** — Select to only include leaf nodes in the filter.
   - **Hide nodes without children** — Select to exclude nodes without children from the filter.
   - **Keep the children if any of their ancestors match** — Select to include children in the filter when any of their ancestors match.
7. Press **Enter**.

   The filter results display in the **Dashboards** expand navigation bar. To stop the filter, click the stop filter (X) icon in the **Filter** text box.

Creating a user-defined dashboard

You can create a dashboard and customize it with the status widgets and performance monitors you need to monitor your network.

1. Click the **Dashboards** expand navigation bar.
2. Click **Add**.

   The **Add Custom Dashboard** dialog box displays.
3. Enter a name and description for the dashboard.

4. Select the **Copy active dashboard widgets** to include all widget in the current dashboard to this dashboard.
5. Click **OK**.

   The new dashboard displays in the **Dashboards** expand navigation bar and becomes the active dashboard.

Deleting a user-defined dashboard

You can delete a user-defined dashboard.

1. Click the **Dashboards** expand navigation bar.
2. Select the dashboard you want to delete and click **Delete**.
3. Click **Yes** on the confirmation message.

Setting the dashboard display

You can set the dashboard to minimize or expand all status widgets and performance monitors as well as return to the default settings.

Select one of the following options from the dashboard display list:

- **Collapse All** — Select to minimize all widgets and monitors on the dashboard.
- **Expand All** — Select to expand all widgets and monitors on the dashboard.
- **Reset to Default** — Select to reset the dashboard to the default display settings.

Customizing the dashboard widgets and monitors

1. From the dashboard, click the **Customize Dashboard** icon.

   The **Customize Dashboard** dialog box displays.
2. Click the **Status** tab.

   The preconfigured general status widgets display.
3. Select the **Display** check box in the **General Status Widgets** list for each status widget you want to add to the dashboard.

   Clear the check box to remove the associated status widget from the dashboard.

   The **General Status Widgets** list contains the following additional information:

   - **Title** — The name of the status widget. For more information, refer to "Status widgets" on page 282.
   - **Description** — A general description of the status widget.

4. Click the **Performance** tab (Figure 99).

   The preconfigured performance monitors display. You can create up to 100 performance monitors; however, you can only display up to 30 performance monitors. For more information about performance monitors, refer to "Performance monitors" on page 304.

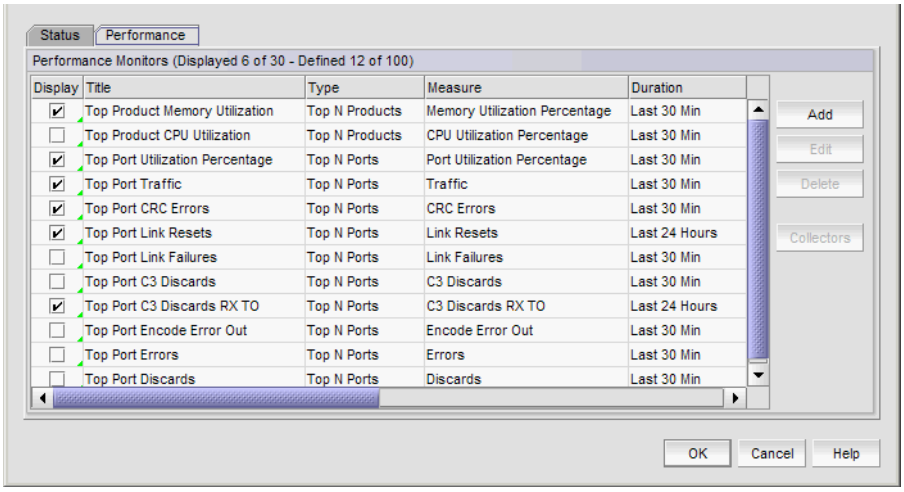

FIGURE 99 **Customize Dashboard dialog box, Performance tab**

5. Select the **Display** check box in the **Performance Monitors** list for each performance monitor you want to add to the dashboard.

   Clear the check box to remove the associated performance monitor from the dashboard.

   The **Performance Monitors** list contains the following additional information:

   - **Title** — The name of the performance monitor. For more information, refer to "Performance monitors" on page 304
   - **Type** — The type of monitor.
   - **Measure** — The performance measures included in the monitor.
   - **Data Collectors —** The data collectors that provide data for the monitor.

6. Click **Add** to add a new performance monitor. For more information, refer to "Configuring a user-defined product performance monitor" on page 342.
7. Click **Edit** to edit an existing performance monitor. For more information, refer to "Configuring a user-defined product performance monitor" on page 342 or "Editing a preconfigured performance monitor" on page 332.
8. Select one or more user-defined monitors and click **Delete** to delete the user-defined performance monitors.
9. Select a monitor and click **Collectors** to launch the **Historical Data Collectors** dialog box. For more information, refer to "Displaying historical data collectors" on page 1518.
10. Click **OK** to close the **Customize Dashboard** dialog box.

Exporting the dashboard display

You can export the current dashboard display (all widgets and monitors) or a selected widget or monitor in a .png format.

1. Select one of the following options from the **Export** list:
   - **Dashboard** — Exports the current dashboard.
   - *Name* — Exports the selected widget (where *Name* is the name of the widget or monitor on the dashboard).

   The **Export Dashboard to PNG File** or **Export** *Name* **to PNG File** dialog box displays.
2. Browse to the location you want to save the file.
3. Enter a name for the snapshot in the **File Name** field, if needed.

   Export uses the following naming convention: *Name_yyyy_mm_dd_hh_mm_ss*.png.
4. Click **Save**.

   The file is saved to the location you selected.

Printing the dashboard display

You can print the current dashboard display (all widgets and monitors) or a selected widget or monitor.

1. Select one of the following options from the **Print** list:
   - **Dashboard** — Prints the current dashboard.
   - *Name* — Prints the selected widget (where *Name* is the name of the widget or monitor on the dashboard).

   The **Page Setup** dialog box displays.
2. Change the page setup options, as needed.
3. Click **OK**.

Attaching and detaching the Dashboard tab

You can detach the **Dashboard** tab from the main application to display in a separate window.

To detach the **Dashboard** tab, click the Detach icon. The **Dashboard -** *Dashboard_Name – Application_Name* window displays.

Reattach the **Dashboard** to the main application by clicking the Attach icon or by closing the **Dashboard -** *Dashboard_Name – Application_Name* window. The **Dashboard** tab displays in the main application window.

Setting the network scope

You can configure the dashboard to display all objects in your area of responsibility (AOR) or a subset of objects (fabrics, devices, or groups).

NOTE
Network scope does not affect the Events widget. The Events widget always includes all objects in your AOR.

From the dashboard, select a network from the **Network Scope** list. Options include:

- All
- Any SAN fabric
- Any Ethernet fabric
- Any system-defined group
- Any user-defined group
- Any user-defined customized network

If you select a fabric scope, violation counts display for all products and ports in the fabric.

If you select a product scope, violation counts display for the selected products and the ports that belong to the selected products.

If you select a port scope, violation counts display for the specified ports and the products to which the ports belong. If any of the selected ports are initiator or target ports, violation counts display for the attached switch port.

Select **All** to include all managed and monitored fabrics or groups in your AOR. The default is **All**. If the fabric or group you select is deleted from discovery, the widget refreshes and returns to the default (**All**).

Creating a customized network scope

You can create a network scope from any objects in your AOR. You can create network scopes based on Fabrics, Products, Product Groups, or Ports.

1. Click the **Network Scope** ellipsis button.

   The **Edit Scope** dialog box displays with a list of existing user-defined network scopes in the **Network Scopes** list.

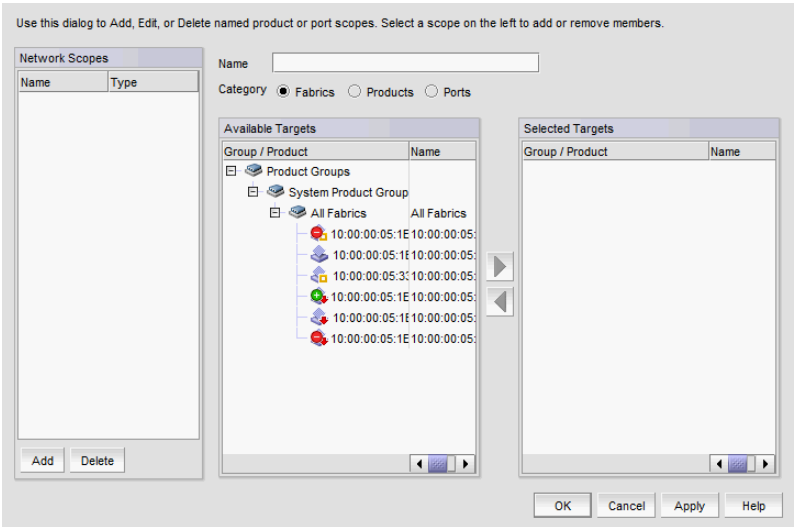

FIGURE 100 Edit Scopes dialog box

2. Click **Add**.

   A new network scope displays in the **Network Scopes** list.

3. Enter a name for the scope in the **Name** field.

4. Select one of the following options:

   - **Fabrics** — Select to create your network from one or more fabrics.
   - **Products** — Select to create your network from one or more products or product groups.
   - **Ports** — Select to create your network from one or more ports or port groups.

5. Select one or more the objects you want to include in the network from the **Available** list and click the right arrow button.

   The objects display in the **Selected** list. To remove an object from the **Selected** list, select it and click the left arrow button.

6. Click **OK** to save your changes and close the **Edit Scope** dialog box.

Editing a user-defined network scope

You can edit any user-defined network scope.

1. Click the **Network Scope** ellipsis button.

   The **Edit Scope** dialog box displays with a list of existing user-defined network scopes in the **Network Scopes** list.

2. Select the network scope you want to edit in the **Network Scopes** list.

   The network scope details display in the right side fields.

3. Change the name for the scope in the **Name** field, if needed.

4. To add objects, select one or more the objects you want to include in the network from the **Available Targets** list and click the right arrow button.

   The objects display in the **Selected Targets** list.

5. To remove an object from the **Selected Targets** list, select it and click the left arrow button.
6. Click **OK** to save your changes and close the **Edit Scope** dialog box.

Deleting a user-defined network scope

You can edit any user-defined network scope.

1. Click the **Network Scope** ellipsis button.

   The **Edit Scope** dialog box displays with a list of existing user-defined network scopes in the **Named Scopes** list.

2. Select the network you want to delete in the **Named Scopes** list.
3. Remove all objects from the **Selected Targets** list.

   To remove an object from the **Selected Targets** list, select it and click the left arrow button.

4. Click **Delete**.
5. Click **OK** to save your changes and close the **Edit Scope** dialog box.

Setting the data display time frame

Setting the time scope in the dashboard toolbar configures the data display time range for the status widgets and performance monitors that include a time range.

NOTE
Time scope does not affect the Events widget. For the Events widget, you set the time scope within the widget.

NOTE
sFlow monitors only display data for up to 1 day.

From the dashboard, select on of the following duration options for which you want to display data from the **Time Scope** list.

- **30 Minutes** — Displays data for the previous half hour.
- **1 Hour** — Displays data for the previous hour.
- **6 Hours** — Displays data for the previous 6 hours.
- **12 Hours** — Displays data for the previous 12 hours.
- **1 Day** — Displays data for the previous day.
- **3 Days** — Displays data for the previous 3 days.
- **1 Week** — Displays data for the previous week.
- **1 Month** — Displays data for the previous month.

The displayed data changes to the new time frame for any status widget or performance monitor affected by time.

Default dashboards

The Management application provides preconfigured dashboards which provide high-level overview of the network, the current states of managed devices, and performance of devices, ports, and traffic on the network.

Product Status and Traffic dashboard

The Product Status and Traffic dashboard provides the following preconfigured status widgets and performance monitors:

- SAN Inventory widget
- IP Inventory widget
- Status widget
- Events widget
- Out of Range Violations widget
- Top Product Memory Utilization monitor
- Top Product CPU Utilization monitor
- Top Products with Unused Ports monitor
- Top Port Utilization Percentage monitor (includes details for all ports, Initiator ports, ISL ports, and Target ports)
- Bottom Port Utilization Percentage monitor (includes details for all ports, Initiator ports, ISL ports, and Target ports)

SAN Ports Health

The SAN Ports Health dashboard provides the following preconfigured status widgets and performance monitors for the ISL, Host, and Target ports:

- Port Health Violations widget
- Bottlenecked Ports widget
- Top Port CRC Errors monitor
- Top Port Sync Losses monitor
- Top Port Link Failures monitor
- Top Port C3 Discards RX TO monitor
- Top Port Link Resets monitor
- Top Port Encode Error Out monitor

IP Port Health

The IP Ports Health dashboard provides the following preconfigured performance monitors:

- Top Port Errors monitor
- Top Port CRC Errors monitor
- Top Port Discards monitor
- Top Port Receive EOF monitor
- Top Port Underflow Errors monitor
- Top Port Overflow Errors monitor
- Top Port Runtime Errors monitor
- Top Port Too Long Errors monitor
- Top Port Alignment Errors monitor

Status widgets

The Management application provides the following preconfigured status widgets:

- Access Point Status widget — Pie chart view of access point devices categorized by operational and reachability status
- Bottlenecked Ports widget — Table view of bottlenecked ports and number of violations for each bottlenecked port in the SAN. There are four versions of this monitor based on the type of port: All ports, initiator ports, ISL ports, and Target ports.
- Events widget — Bar chart view of events grouped by severity and range
- Host Adapter Inventory widget — Stacked bar chart view of Host Adapters grouped by selected category
- IP Inventory widget — Stacked bar chart view of IP devices grouped by operational status and selected category
- IP Status widget — Pie chart view of IP devices categorized by operational and reachability status
- Out of Range Violations widget — Table view of all out of range threshold violations reported in your SAN
- Port Health Violations widget — Table view of out of range port health violations. There are four versions of this monitor based on the type of port: All ports, initiator ports, ISL ports, and Target ports.
- SAN Inventory widget — Stacked bar chart view of FC devices grouped by operational status and selected category
- SAN Status widget — Pie chart view of FC devices categorized by operational status
- Status widget — List view of various status attributes
- VM Alarms widget — Table view of alarms received from vCenter products

Access Point Status widget

The **Access Point Status** widget displays the access point (AP) status as a pie chart.

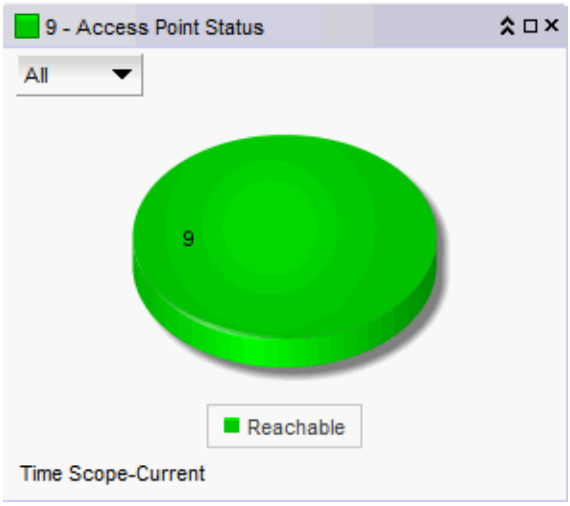

FIGURE 101 Access Point Status widget

The **Access Point Status** widget includes the following data:

- Severity icon/product count/widget title — The color of the worst status followed by the product count with that status displays before the widget title.
- **Show** list — A list of available managed AP products.
- Pie chart — The AP status as a percentage of the total number of devices.

  The pie chart displays the percentage in various colors on each slice. Tooltips showing the number of devices in that state are shown when you pause on the slice. When there is one status category with less than one percent of the total number of devices, the status widget displays the number of devices in each category on each slice.
- Color legend — Displays the color legend below the pie chart using the color-codes in Table 35.

TABLE 35 AP status color codes

Color	Type
Green	Online — AP is managed by controller and online.
Red	Offline — AP is managed by controller, but is offline.
Gray	Pending Adoption — Controller found AP but not managed.

Customizing the Access Point Status widget

You can customize the **Access Point Status** widget to display status for a specific product.

Change the grouping by selecting one of the following from the **Show** list:

- **All —** Displays all the AP products.
- **AP7131** — Displays only AP 7131 products.
- **AP6511** — Displays only AP 6511 products.
- **AP650 —** Displays only AP 650 products.

Accessing additional data from the Access Point Status widget

Double-click a section in the **Access Point Status** widget to navigate to a filtered view of the **AP Products** report.

Bottlenecked Ports widget

The **Bottlenecked Ports** widget (Figure 102) displays the bottlenecked port violations for the specified fabric and time range in a table. There are four bottlenecked port widgets: All, ISL, Initiator, and Target.

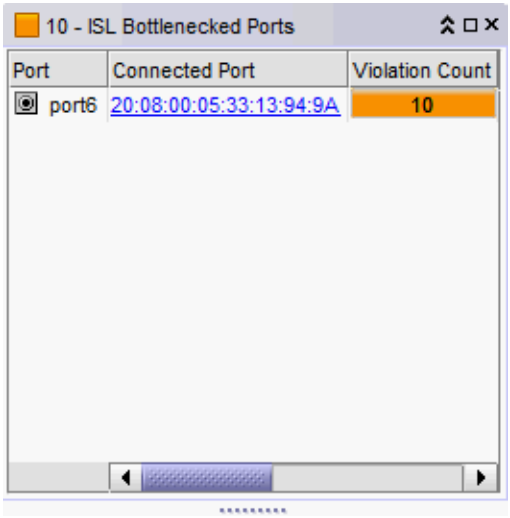

FIGURE 102 Bottlenecked Ports widget

The **Bottlenecked Ports** widget includes the following data:

- Severity icon/violation count/widget title — The color of the worst severity and the total number of ports in violation displays before the widget title.
- **Port** — The port identifier, such as port name, number, address, WWN, user port number, or zone alias.
- *Connected_Port_Link* (where *Connected_Port_Link* is **Connected Port**, **Initiator**, or **Target**) — Displays one of the following:
  - **Connected Port** — The ISL or IFL port on the connected device. Click to launch the switch port properties dialog box.
  - **Initiator** — The initiator port on the connected device. Click to launch the device properties dialog box.
  - **Target** — The target port on the connected device. Click to launch the device properties dialog box.
- **Violation Count** — The number of bottleneck violations for the port during the selected time range. This is based on bottleneck configuration. Each trap or alert sent by the switch and the Management application counts as one violation. For more information, refer to "Bottleneck detection" on page 1488.
- **Product** — The product label, such as product name, IP address, node WWN, domain ID, or zone alias.

- **Type** — The port type.
- **Identifier** — The port identifier, such as port name, number, address, WWN, user port number, or zone alias.
- **Port Number** — The port number.
- **State** — Whether the port is online or offline.
- **Status** — Whether the port is online or offline.

Customizing the Bottlenecked Ports widget

You can customize the widget to display data for a specific fabric and duration.

- To display data for a specific fabric or group, refer to "Setting the network scope" on page 278.
- To display data for a specific duration, refer to "Setting the data display time frame" on page 280.

Accessing additional data from the Bottlenecked Ports widget

Right-click a row in the widget to access the shortcut menu available for the associated device. For more information about shortcut menus, refer to "Application menus" on page 1887.

Events widget

The **Events** widget (Figure 103) displays the number of events by severity level for a specified time range as a stacked bar graph.

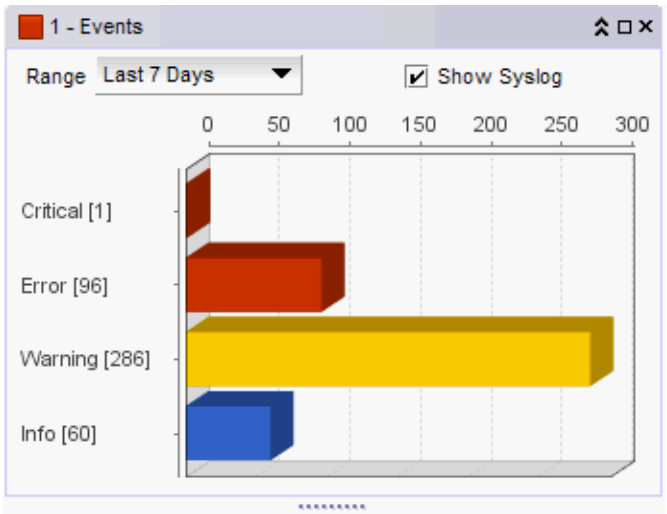

FIGURE 103 Events widget

The **Events** widget includes the following data:

- Severity icon/widget title/event count — The color of the worst severity followed by the event count with that severity displays before the widget title.
- **Range** list — Use to customize this widget to display a specific time range. Options include: This Hour, Last Hour, Today, Yesterday, Last 7 Days, and Last 30 Days.
- **Show Syslog** check box — Select to include Syslog information (default) on the Event Summary.

- Bar chart — The event severity using the color-codes in Table 36:

TABLE 36 Event severity color codes

Color	Severity
Red ( )	Emergency
Brick Red( )	Alert
Brick Red ( )	Critical
Brick Red ( )	Error
Gold ( )	Warning
Grey ( )	Notice
Blue ( )	Info

- Network Scope — The network scope does not affect the Events widget. The Events widget always includes all objects in your AOR.
- Time Scope — The time scope.

The Events widget only includes events from products that are in your AOR.

The x-axis represents the number of occurrences of a particular event severity during the selected time period. If you pause on a bar, a tooltip shows the number of events with that severity level during the selected time period. Also, for each severity, the cumulative number of traps, application events, and security events is reported next to the horizontal bar. If Syslog messages are included, then they are included in the count. To conserve space, the number is shown as is or truncated to the nearest 1,000("K") or 1,000,000("M").

By default, Syslog events are included in the summary; however, because Syslog events occur at a much higher frequency than other events and therefore could skew the bars for the other events, you can exclude Syslog events. If they are excluded, they will not be displayed in the legend. Users' selections are persisted (per user per server).

Customizing the Events widget

You can customize the Events widget to display events for a specific duration and to display Syslog details.

- Display event information for a specific duration by selecting one of the following from the **Range** list:
  - **This Hour** — Displays event information for the current hour beginning when you launch the dashboard.
  - **Last Hour** — Displays event information for the previous hour to when you launch the dashboard.
  - **Today** — Displays event information for the current day beginning at 12:00 AM.
  - **Yesterday** — Displays event information for the previous day beginning at 12:00 AM of the previous day.
  - **Last 7 Days** — Displays event information for the last 7 days, including the current day.
  - **Last 30 Days** — Displays event information for the last 30 days, including the current day.

- Include Syslog information (default) on the **Event Summary** pane by selecting the **Show Syslog** check box.

  To exclude Syslog information, clear the **Show Syslog** check box.

Accessing additional data from the Events widget

Double-click a bar in the **Events** widget to navigate to an event custom report (HTML) that displays the events corresponding to the event type selected.

For information about report details, refer to "Fault Management" on page 1707.

Host Adapter Inventory widget

The **Host Adapter Inventory** widget (Figure 104) displays the host adapter products inventory as stacked bar graphs.

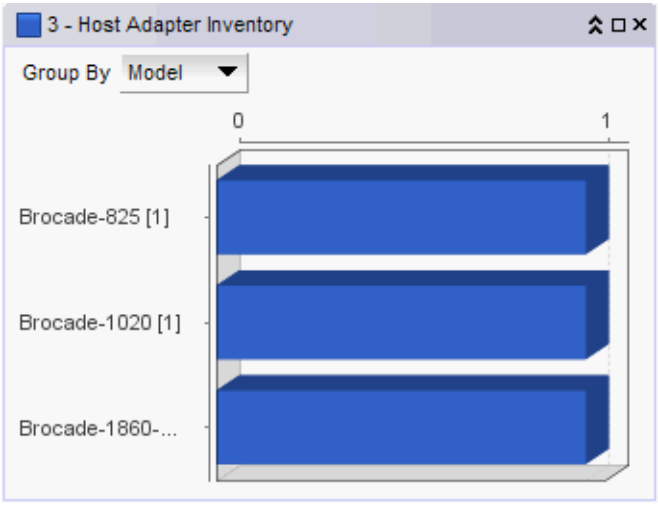

FIGURE 104 Host Adapter Inventory widget

The **Host Adapter Inventory** widget includes the following data:

- Severity icon/Host product count/widget title — The color of the worst severity and the Host product count with that severity displays before the widget title.
- **Group By** list — Use to customize this widget to display a specific grouping. Options include: **Model** (default), **Location**, **Driver**, **BIOS**, and **OS Type**.
- Bar chart — Displays each group as a separate bar on the graph. Displays the current state of all Host products discovered for a group in various colors on each bar. Tooltips showing the number of devices in that state are shown when you pause on the bar.
- Time Scope — The time scope.

Customizing the Host Adapter Inventory widget

You can customize the **Host Adapter Inventory** widget to display product inventory for a specific grouping. The group type and number of products in the group displays to the left of the associated bar; for example, 2.3.0.005 [3], where 2.3.0.005 is the driver number and [3] is the number of products running that driver level.

- Change the grouping by selecting one of the following from the **Group By** list:
  - **Model** — Displays the Host product inventory by model.
  - **Location** — Displays the Host product inventory by physical location.
  - **Driver** — Displays the Host product inventory by driver.
  - **BIOS** — Displays the Host product inventory by BIOS (boot code image version).
  - **OS Type** — Displays the Host product inventory by operating system.
- Zoom in on an area of the widget by dragging the mouse (upper left corner to lower right corner) to select one or more bars.

  NOTE
  If the ratio between the longest and shortest bar reaches 5000:1, you should maximize the widget prior to using zoom.

  To return the widget to its original state, reverse the selection (drag from lower right corner to upper left corner).

Accessing additional data from the Host Adapter Inventory widget

Double-click a bar in the **Host Adapter Inventory** widget to navigate to the **Host Adapter Inventory Report**.

IP Inventory widget

The **IP Inventory** widget (Figure 105) displays the IP products inventory as stacked bar graphs.

For a VCS fabric, each VCS fabric is counted as an individual product.

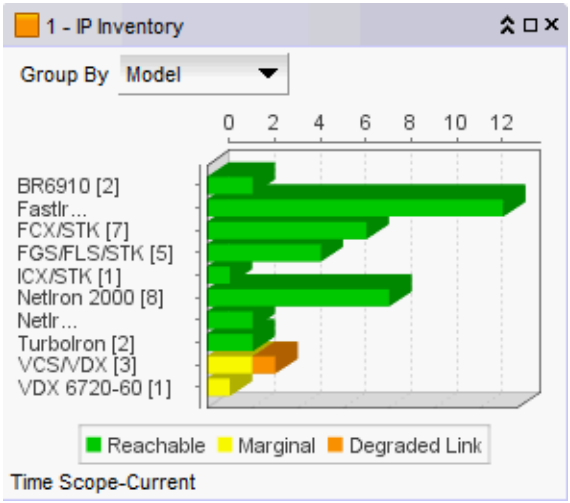

FIGURE 105 IP Inventory widget

The **IP Inventory** widget includes the following data:

- Severity icon/product count/widget title — The color of the worst severity followed by the IP product count with that severity displays before the widget title.
- **Group By** list — Use to customize this widget to display a specific group of products. Options include: **Firmware**, **Model**, **Product Type**, **Location**, and **Contact**.
- Bar chart — Displays each group as a separate bar on the graph. Displays the current state of all products discovered for a group in various colors on each bar. Displays the color legend below the x-axis. Tooltips showing the number of devices in that state are shown when you pause on the bar.
- Color legend — Displays the color legend below the bar chart.
  - Green — Reachable: IP product is online and accessible by IP (ICMP/TCP) and SNMP.
  - Orange — Degraded Link: IP product is accessible by IP (ICMP/TCP); however, it is not accessible by SNMP.
  - Maroon — Not Reachable: IP product is not online and not accessible by IP (ICMP/TCP).
- Time Scope — The time scope.

Customizing the IP Inventory widget

You can customize the **IP Inventory** widget to display product inventory for a specific grouping. The group type and number of products in the group displays to the left of the associated bar; for example, v04.1.00a [3], where v04.1.00a is the firmware number and [3] is the number of products running that firmware level.

- Change the grouping by selecting one of the following from the **Group By** list:
  - **Firmware** — Displays the product inventory by firmware release.
  - **Model** — Displays the product inventory by model.
  - **Product Type** — Displays the product inventory by product type.
  - **Location** — Displays the product inventory by physical location.
  - **Contact** — Displays the product inventory by contact name.
- Zoom in on an area of the widget by dragging the mouse (upper left corner to lower right corner) to select one or more bars.

  NOTE
  If the ratio between the longest and shortest bar reaches 5000:1, you should maximize the widget prior to using zoom.

  To return the widget to its original state, reverse the selection (drag from lower right corner to upper left corner).

Accessing additional data from the IP Inventory widget

Double-click a section of the bar in the **IP Inventory** widget to navigate to the **IP Products** - *Status* dialog box (where *Status* is the status of the section you selected). For more information, refer to "Viewing additional IP product data" on page 292

NOTE
It takes a few moments to populate newly discovered products in the **IP Products** - *Status* dialog box (where *Status* is the section of the widget you selected).

IP Status widget

The **IP Status** widget (Figure 106) displays the device status as a pie chart. If you discover a DCB switch from the **IP** tab, the switch status only displays in the **IP Status** widget. However, if you discover a DCB switch from the **SAN** tab, the switch status displays in both the **SAN Status** and **IP Status** widgets.

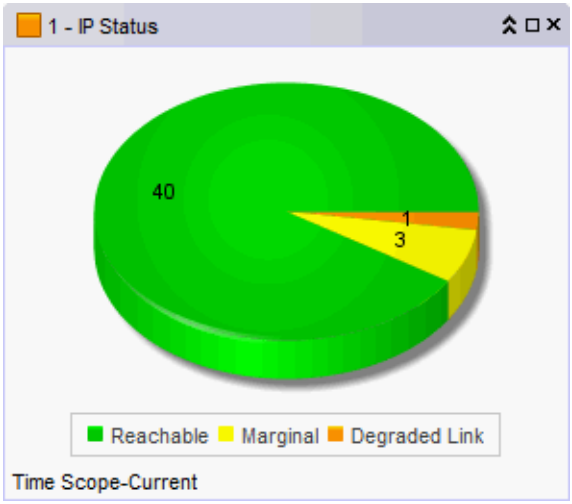

FIGURE 106 IP Status widget

The **IP Status** widget includes the following data:

- Severity icon/product count/widget title — The color of the worst status followed by the product count with that status displays before to the widget title.
- Pie chart — The device status as a percentage of the total number of devices.

  The pie chart displays the percentage in various colors on each slice. Tooltips showing the number of devices in that state are shown when you pause on the bar. When there is one status category with less than one percent of the total number of devices, the status widget displays the number of devices in each category on each slice.

  For a VCS fabric, status is determined by the reachability of the individual members of the VCS fabric. The **IP Status** widget displays the most severe reachability of a member of the VCS fabric. For example, if one member of the VCS fabric has a reachability status of “degraded” and all other members are ‘reachable’, then the VCS fabric status displays as “degraded”.
- Color legend — Displays the color legend below the pie chart using the following color-code:
  - Green — Reachable: IP product is online and accessible by IP (ICMP/TCP) and SNMP.
  - Yellow — Degraded Link: IP product is accessible by IP (ICMP/TCP); however, it is not accessible by SNMP.
  - Violet — Unhealthy: One or more units are not present, unit power is off, or the stacking connection is down.
  - Blue — Not Reachable: IP product is not online and not accessible by IP (ICMP/TCP).
- Time Scope — The time scope.

Accessing additional data from the IP Status widget

Double-click a section in the **IP Status** widget to navigate to the **IP Products -** *Status* dialog box (where *Status* is the status of the section you selected). For more information, refer to "Viewing additional IP product data" on page 292

NOTE
It takes a few moments to populate newly discovered products in the **IP Products -** *Status* dialog box (where *Status* is the section of the widget you selected).

Viewing additional IP product data

1. Double-click a section in the **IP Status** or **IP Inventory** widgets.

   The **IP Products -** *Status* dialog box (where *Status* is the section of the widget you selected) displays with the following fields and components:

   - **Product —** The product name.
   - **Fabric** — The fabric associated with the product.
   - **Product Type —** The type of product.
   - **State —** The state for the product and the port.
   - **Status —** The status for the product and the port.
   - **Tag —** The tag number of the product.
   - **Serial # —** The serial number of the product.
   - **Model** — The model number of the product.
   - **Port Count —** The number of ports on the product.
   - **Firmware —** The firmware version of the product.
   - **Location** — The physical location of the product. This field is editable at the fabric level.
   - **Contact —** The name of the person or group you should contact about the product. This field is editable at the fabric level.

2. Right-click any row in the table to access the corresponding shortcut menu for the device. For more information about shortcut menus, refer to "IP shortcut menus" on page 1920.
3. Click **Close**.

SAN Inventory widget

The **SAN Inventory** widget (Figure 107) displays the SAN products inventory as stacked bar graphs.

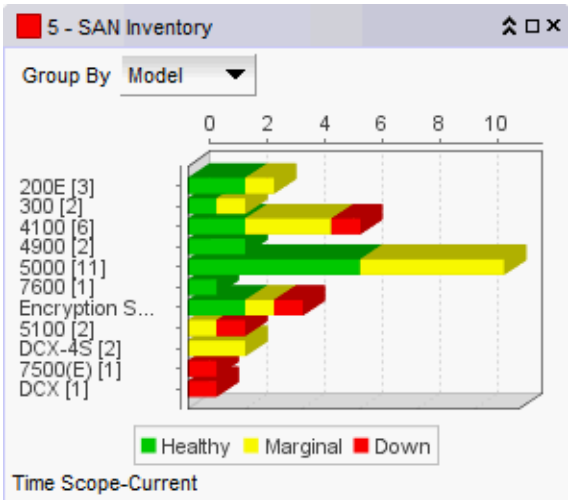

FIGURE 107 SAN Inventory widget

The **SAN Inventory** widget includes the following data:

- Severity icon/product count/widget title — The color of the worst severity followed by the number of products with that severity displays before to the widget title.
- **Group By** list — Use to customize this widget to display a specific group of products. Options include: **Firmware**, **Model**, **Location**, and **Contact**.
- Bar chart — The product status as a percentage of the total number of products.

  The bar chart displays each group as a separate bar on the graph. Displays the current state of all products discovered for a group in various colors on each bar. Tooltips showing the number of devices in that state are shown when you pause on the bar.
- Color legend — Displays the color legend below the bar chart using the following color codes:
  - Green — Healthy: Status obtained from the SAN switch based on Fabric Watch or Monitoring and Alerting Policy Suite (MAPS) thresholds configured on the switch.
  - Yellow — Marginal: Status obtained from the SAN switch based on Fabric Watch or MAPS thresholds configured on the switch.
  - Red — Down: Status obtained from the SAN switch based on Fabric Watch or MAPS thresholds configured on the switch.
  - Blue — Not Reachable: SAN switch is not reachable by HTTP.
  - Gray — Unknown: Temporary status that displays when switch asset collection is in progress. Once switch asset collection is complete, the current status is obtained from the switch.
- Time Scope — The time scope.

Customizing the SAN Inventory widget

You can customize the **SAN Inventory** widget to display the product inventory for a specific group. The group type and number of devices in the group displays to the left of the associated bar; for example, v7.0.0 [3], where v7.0.0 is the firmware number and [3] is the number of devices running that firmware level.

- Change the grouping by selecting one of the following from the **Group By** list:
  - **Firmware** — The product inventory by firmware release.
  - **Model** — The product inventory by model.
  - **Location** — The product inventory by physical location.
  - **Contact** — The product inventory by contact name.
- Zoom in on an area of the widget by dragging the mouse (upper left corner to lower right corner) to select one or more bars.

  NOTE
  If the ratio between the longest and shortest bar reaches 5000:1, you should maximize the widget prior to using zoom.

  To return the widget to its original state, reverse the selection (drag from lower right corner to upper left corner).

Accessing additional data from the SAN Inventory widget

Double-click a section in the **SAN Inventory** widget to navigate to the **SAN Products** - *Status* dialog box (where *Status* is the section of the widget you selected). For more information, refer to "Viewing additional SAN product data" on page 296.

NOTE
It takes a few moments to populate newly discovered products in the **SAN Products** - *Status* dialog box (where *Status* is the section of the widget you selected).

SAN Status widget

The **SAN Status** widget (Figure 108) displays the device status as a pie chart.

If you discover a DCB switch from the **SAN** tab, the switch status displays in both the **SAN Status** and **IP Status** widgets. However, if you discover a DCB switch from the **IP** tab, the switch status only displays in the **IP Status** widget.

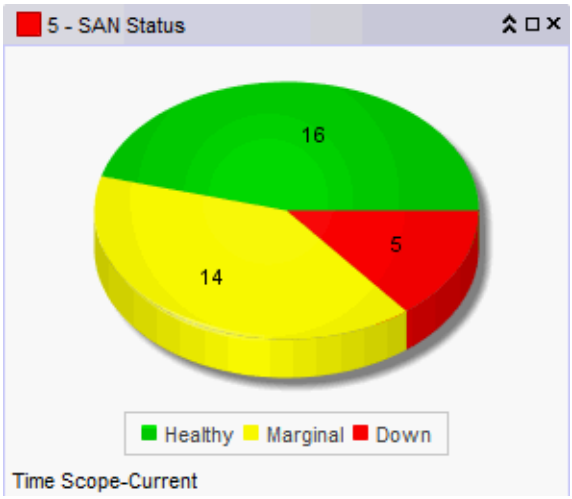

FIGURE 108 SAN Status widget

The **SAN Status** widget includes the following data:

- Severity icon/product count/widget title — The color of the worst status followed by the number of products with that status displays before to the widget title.
- Pie chart — The device status as a percentage of the total number of devices.

  The pie chart displays the percentage in various colors on each slice. Tooltips showing the number of devices in that state are shown when you pause on the slice. When there is one status category with less than one percent of the total number of devices, the status widget displays the number of devices in each category on each slice.
- Color legend — Displays the color legend below the bar chart using the following color codes:
  - Green — Healthy
  - Yellow — Marginal
  - Red — Down
  - Blue — Not Reachable
  - Gray — Unknown
- Time Scope — The time scope.

Accessing additional data from the SAN Status widget

Double-click a section in the **SAN Status** widget to navigate to the **SAN Products -** *Status* dialog box (where *Status* is the section of the widget you selected). For more information, refer to "Viewing additional SAN product data" on page 296.

NOTE
It takes a few moments to populate newly discovered products in the **SAN Products -** *Status* dialog box (where *Status* is the section of the widget you selected).

Viewing additional SAN product data

1. Double-click a section in the **SAN Status** widget.

   The **SAN Products -** *Status* dialog box (where *Status* is the section of the widget you selected) displays with the following fields and components:

   - **Product —** The product name.
   - **Fabric** — The fabric associated with the product.
   - **Product Type —** The type of product.
   - **State —** The state for the product and the port.
   - **Status —** The status for the product and the port.
   - **Tag —** The tag number of the product.
   - **Serial # —** The serial number of the product.
   - **Model** — The model number of the product.
   - **Port Count —** The number of ports on the product.
   - **Firmware —** The firmware version of the product.
   - **Location** — The physical location of the product. This field is editable at the fabric level.
   - **Contact —** The name of the person or group you should contact about the product. This field is editable at the fabric level.

2. Right-click any row in the table to access the corresponding shortcut menu for the device. For more information about shortcut menus, refer to "SAN shortcut menus" on page 1905.
3. Click **Close**.

Status widget

The Status widget (Figure 109) displays the number of products managed and the number of events within the selected event time range, as well as various IP management processes and their current state.

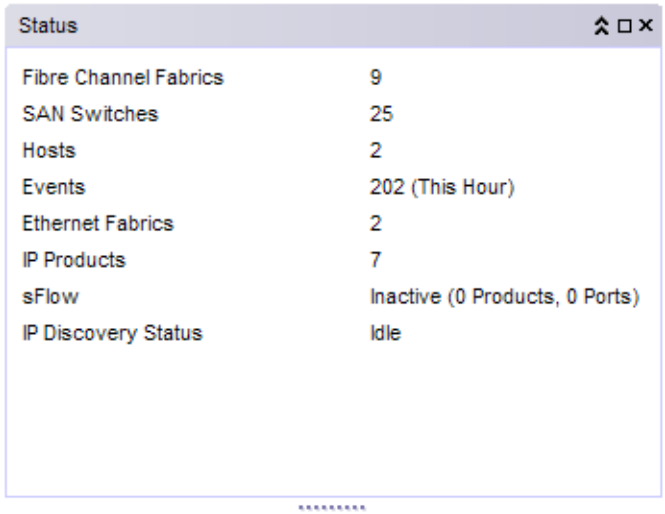

FIGURE 109 Status widget

The Status widget displays the following items for each product license:

- Fibre Channel Fabrics — The number of managed fabrics.
- SAN Switches — The number of managed SAN switches.
- SAN Physical Switches — The number of discovered physical SAN switches.
- Hosts — The number of managed hosts.
- Events — The number of events within the last hour.
- Ethernet Fabrics — The number of managed Ethernet fabrics.
- IP Products — The number of managed IP products.
- sFlow — The current sFlow state.
- IP Discovery Status — The current IP discovery status.
- Time Scope — The time scope.

VM Alarms widget

NOTE
]Enabling the **VM Alarms** widget requires discovery of vCenters.

The **VM Alarms** widget displays the vCenter alarms for the specified fabric and time range in a table.

The **VM Alarms** widget includes the following data:

- Severity icon/widget title — The worst severity of the data shown next to the widget title.
- **VM** — Virtual Machine name.
- **Host** — Host name.
- **Total** — Number of alarms triggered by the following violations: VM disk aborts, VM disk resets, VM disk usage (kbps), and VM total disk latency (ms).
  - **Latency** — Number of latency violations.
  - **Usage** — Number of usage violations.
  - **Aborts** — Number of abort violations.
  - **Resets** — Number of reset violations.

Customizing the VM Alarms widget

You can customize the **VM Alarms** widget to display data for a specific fabric and duration.

- To display data for a specific fabric or group, refer to "Setting the network scope" on page 278.
- To display data for a specific duration, refer to "Setting the data display time frame" on page 280.

Accessing additional data from the VM Alarms widget

- Right-click a row in the widget to access the shortcut menu available for the associated device. For more information about shortcut menus, refer to "SAN shortcut menus" on page 1905.
- Double-click a row in the widget to navigate to the **VM Troubleshooting** - *VM_Name* (*Host_Name*) dialog box (where *VM_Name* (*Host_Name*) is the name of the virtual machine and associated host). For more information, refer to "Host Management" on page 641.